

REMARKS**Rejections under 35 U.S.C § 103(a)**

Claims 1-6, 12-13 and 18-19 stand rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent Application No. EP 0 790 143 ("Suzuki") in view of U.S. Patent Application Publication No. 2002/0195185 ("Choi"). Applicant claims a tire that includes, *inter alia*, a first crown reinforcement having cords being high elastic modulus at high stress organic fiber cords and a second crown reinforcement having a ratio τ of the tensile strength at *high strain* and high temperature to *low strain* at moderate temperature inferior to 1.5. (Claim 1).

To establish a *prima facie* case of obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 985 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 1385 (CCPA 1970).

Applicant respectfully asserts that a *prima facie* case of obviousness has not been presented because the cited prior art references fail to teach or suggest all the claim limitations of pending claim 1. Specifically, the cited prior art references fail to teach a second crown reinforcement having a ratio $\tau < 1.5$.

Suzuki teaches a tire having a band belt (9) comprising a full-width band (9A) and a pair of axially spaced edge bands (9B), wherein the full-width band is made of a low elastic modulus organic fiber cord and the edge bands are made of high modulus organic fiber cord. (Suzuki, Abstract).

Applicant respectfully notes that the Examiner states that the cords (9A) as disclosed by Suzuki are high elastic modulus at high stress organic cords. (*See*, Office Action, p. 2, ¶ 2). However, as noted in the paragraph above, Suzuki discloses that the cords 9(A) are *low* elastic modulus organic fiber cord. Therefore, Applicant assumes this is a typographical error in the Office Action and the Examiner meant to call these fibers "9B," which are the edge plies of the tire disclosed by Suzuki.

As the Examiner notes, Suzuki does not disclose cords having a ratio $\tau < 1.5$. The Examiner cites Choi as disclosing cords having the ratio $\tau < 1.5$. However, the ratio referred to by Choi is the ratio $S3/S4$, which is defined as the tensile strength at high temperature to the

tensile strength at room temperature. (Choi, Abstract). There is no teaching or suggestion in Choi that the ratio S3/S4 be taken at high strain/low strain as claimed by Applicant in Claim 1.

Furthermore, Choi specifically address a ratio S3/S4, not for any portion of the crown, but for a cord used in the carcass of the tire. (Choi, claim 1). Choi discloses that the crown part of the tire is reinforced by a structure of a belt 8 and a cap ply 9. (Choi, ¶ 0040). However, there is no teaching or discussion in Choi regarding the ration S3/S4 for the disclosed parts of the crown.

Therefore, because the cited prior art references fail to teach or suggest each and every limitation of pending claim 1, Applicant asserts that a *prima facie* case of obviousness has not been presented. Applicant respectfully requests reconsideration and withdrawal of the rejection of independent claim 1 as well as for all claims depending therefrom.

Regarding claim 12, Applicant further claims the tire of claim 1, wherein the crown further comprises a pair of axially spaced edge plies. (Claim 12). As noted by the Examiner, Suzuki discloses edge plies (9B) that are made of a high modulus organic fiber cord. (Suzuki, Abstract). However, it is these edge plies (9B) that the Examiner refers to as the first crown reinforcement and therefore, they can't be used again as edge plies for claim 12. Therefore, the prior art references fail to disclose a first crown reinforcement and a second crown reinforcement and *additionally* a pair of axially spaced edge plies.

Because the prior art references fail to disclose each and every limitation claimed by Applicant in pending claim 12, Applicant asserts that a *prima facie* case of obviousness has not been presented. Applicant respectfully requests reconsideration and withdrawal of the rejection of claim 12 and all claims depending therefrom.

Claims 14-17 stand rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent Application No. EP 0 790 143 ("Suzuki") in view of U.S. Patent Application Publication No. 2002/0195185 ("Choi") and further in view of U.S. Patent 5,032,198 ("Kojima"). Claims 20-23 stand rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent Application No. EP 0 790 143 ("Suzuki") in view of U.S. Patent Application Publication No. 2002/0195185 ("Choi") and further in view of U.S. Patent No. 6,634,399 ("Sykora"). Claims 24-29 stand rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent

Patent
Attorney Docket No.: P10-1439

Application No. EP 0 790 143 ("Suzuki") in view of U.S. Patent Application Publication No. 2002/0195185 ("Choi") and further in view of U.S. Patent 4,155,394 ("Sheperd").

For the reasons provided in the remarks above regarding independent claim 1, Applicant respectfully requests reconsideration and withdrawal of the rejections of claims 14-17, 20-23 and 24-29, all of which depend either directly or indirectly from independent claim 1.

Applicant respectfully asserts that all claims are now in condition for allowance and requests the timely issuance of the Notice of Allowance. If the Examiner believes that a telephone interview would expedite the examination of this pending patent application, the Examiner is invited to telephone the below signed attorney at the convenience of the Examiner. In the event there are any fees or charges associated with the filing of these documents, the Commissioner is authorized to charge Deposit Account No. 13-3085 for any necessary amount.

Respcctfully submitted,



Frank J. Campigotto
Attorney for Applicant
Registration No. 48,130
864-422-4648